## ABSTRACT OF THE DISCLOSURE

A method of evaluating the performance of a mobile telephone network having at least a first and a second simulation of a first and a second network configuration, respectively, which are statistically independent of each other. Each simulation includes the following steps: specifying a total number of users to be simulated; determining a sequence of activation of user blocks included in this total number of users to be simulated and indicating a traffic distribution; activating said user blocks in succession until the total number of users to be simulated is reached; and processing at least one radio resource management event relating to the traffic distribution associated with each currently activated user block. The simulations are repeated until a predetermined accuracy threshold is reached for each simulated network value.